

Seminario de análisis matemático y aplicaciones
Analisi matematikoa eta aplikazioak mintegia

A new approach to maximal regularity
for parabolic PDEs

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ABSTRACT: Maximal regularity can often be used to obtain a priori estimates which give global existence results. In this talk I will explain a new approach to maximal L^p -regularity for parabolic PDEs with time dependent generator $A(t)$. The novelty is that I merely assume a measurable dependence on time. I will first show that there is an abstract operator theoretic condition on $A(t)$ which is sufficient to obtain maximal L^p -regularity. As an application I will obtain an optimal $L^p(L^q)$ regularity result in the case each $A(t)$ is a 2m-th order elliptic differential operator on R^d in non-divergence form, for every $p, q \in (1, +\infty)$. This is a joint work with Mark Veraar (TU Delft).

LUGAR / LEKUA:

Sala de seminarios de la sección de matemáticas
Matematika ataleko mintegi gela

DÍA Y HORA / EGUNA ETA ORDUA:

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